Which features are important for effectiveness of sport- and health-related apps?

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This research is cofinanced by 'Regieorgaan SIA', part of the Netherlands Organisation for Scientific Research (NWO)
Introduction
Introduction

- Running, bicycling, walking (Dallinga et al., 2016)
- Potential support + encourage physical activity
- Value of app features?
Aim

Identify which features in sport- and health-related apps contribute to effectiveness of apps.
Method

- Expert meeting (focus groups)
  - Two subgroups
- Nominal group technique (Van de Ven, 1972)

→ Identify and rank app features relevant for effectiveness of apps
Nominal group technique

**Round 1:** Individually list all features that they found necessary for increasing effectiveness of apps.

All features were collected, explained and listed on a white board.

**Round 2:** Individually rank the ten most important features.

Rankings were discussed group wise.

**Round 3:** Final ranking of the ten most important features. Score 0-100 importance.
## Results

<table>
<thead>
<tr>
<th>Feature</th>
<th>Mean score</th>
<th>Frequency</th>
<th>Weighing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usability</td>
<td>86,3</td>
<td>7</td>
<td>603,8</td>
</tr>
<tr>
<td>Monitoring / statistics</td>
<td>92,5</td>
<td>5</td>
<td>462,5</td>
</tr>
<tr>
<td>Fun</td>
<td>79,4</td>
<td>5</td>
<td>396,9</td>
</tr>
<tr>
<td>Motivating feedback</td>
<td>91,3</td>
<td>4</td>
<td>365,0</td>
</tr>
<tr>
<td>Works good technically</td>
<td>87,5</td>
<td>4</td>
<td>350,0</td>
</tr>
<tr>
<td>Tailoring start level</td>
<td>85,0</td>
<td>4</td>
<td>340,0</td>
</tr>
<tr>
<td>Anticipating / context awareness</td>
<td>60,4</td>
<td>5</td>
<td>302,1</td>
</tr>
<tr>
<td>Tailoring always</td>
<td>85,0</td>
<td>3</td>
<td>255,0</td>
</tr>
<tr>
<td>Check on health</td>
<td>73,3</td>
<td>3</td>
<td>220,0</td>
</tr>
<tr>
<td>Social</td>
<td>72,5</td>
<td>3</td>
<td>217,5</td>
</tr>
<tr>
<td>Instructional feedback</td>
<td>95,0</td>
<td>2</td>
<td>190,0</td>
</tr>
</tbody>
</table>

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Usability

“Does the app do what you expect from it and are certain functions working.”

“That the app is easy to use. And that you can easily find all functions.”

“Usability is really about if I can execute the task I want to do as good as possible.”
Monitoring / statistics

“That you can monitor statistics, that you can see all activities you did and when.”

“Insight and measuring of exercise behavior.”
Conclusion

- Usability, monitor/ statistics, fun
- Smart and tailored app + provide feedback + anticipate on the environment
- Usability = premise
- Currently available exercise app rating scales could be revised
Next steps

• Preferences sport app users
• Preferences sportprofessionals

→ Develop decision tool for apps
Thank you!

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Discussion
Topics to discuss

• How to deal with innovations as health care professional?
• What are the best ways to create user engagement and adherence?
• Blended interventions: how to combine the best of both worlds?
• How to collect user data while guaranteeing privacy?